IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Daivid J. Morgan, et al.	Art Unit	: 2178
Serial No.	: 10/675,593	Examiner	: Wilson W. Tsui
Filed	: September 30, 2003	Conf. No.	: 9939
Title	: PUSHING INFORMATION TO DISTRIBUTED DISPLAY SCREENS		

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

UNOFFICIAL AMENDMENT

In response to the Office Action of June 10, 2009, Applicants submit the following amendments and remarks. Please amend the above-identified application as follows:

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-25 (Cancelled)

26. (Currently Amended) A method for displaying information on a display device, the method comprising:

receiving, from a remote central control server, a rotation set comprising a list identifying pages to be displayed in a predetermined sequence;

retrieving, from a cache, pages identified in the rotation set that are stored in the cache, wherein the pages in the rotation set are generated by the central control server;

determining that at least one page identified in the rotation set is not stored in the cache at the display device;

sending, to the remote central control server, at least one request for the at least one page identified in the rotation set that is not stored in the cache;

receiving, from the remote central control server, the requested pages in response to the at least one request, wherein the requested pages are generated by the central control server;

storing the received pages in the cache at the display device;

displaying each page of the rotation set, wherein the pages are retrieved from the cache and displayed in the predetermined sequence in a substantially continuous loop until pages in a new rotation set are received;

receiving a notice of a change [[to]]of at least one page in the rotation set, from the remote central control server, during display of the rotation set pages in the substantially continuous loop, wherein the remote central control server is notified of the change by a remote data server, and wherein the notice of the change [[is]]received from the remote central control server is in response to the remote central control server referencing subscription data stored in a database to identify the display device that is to display data that has changed, wherein the subscription data indicates the rotation set that is to be displayed;

transmitting a request for a page to be generated and transmitted to the display device containing the changed data in response to the notice, wherein the request is transmitted to the remote central control server in response to the received notice of the change to the rotation set; and

receiving the page containing the changed data from the remote central control server.

27. (Original) The method of claim 26, wherein the rotation set further indicates a time period, corresponding to each identified page, for displaying the identified page, and each page is displayed for the time period corresponding to the page.

28. (Original) The method of claim 26 wherein the rotation set comprises an extensible markup language (XML) document.

29. (Original) The method of claim 26 wherein the at least one request is sent using hypertext transfer protocol (HTTP).

30. (Previously Presented) The method of claim 26, wherein displaying [[the]]each page comprises displaying [[the]]each page using a web browser.

31. (Currently Amended) A system for displaying information on a set of display devices comprising:

a database for storing data comprising:

page data relating to a layout and content on each page to be displayed on the set of display devices;

subscription data indicating at least one rotation set to be displayed on each display device in the set of display devices;

at least one central control server adapted to:

receive a notification from a remote data server that data, provided by the remote data server for inclusion in a page to be displayed by a display device, has changed;

respond to the received notification that data has changed by referencing the subscription data stored in the database to identify at least one display device displaying data that has changed, according to the received notification, and notifying the at least one display device of the change in the stored data;

receive a request for a page containing the changed data;

generate the requested page according to the page data stored in the database and incorporating at least a portion of the changed data obtained from the remote data server; and

send the page to the at least one display device that displays the page in response to the received request; and

the at least one display device adapted to:

receive a rotation set comprising a list identifying pages to be displayed in a predetermined sequence;

retrieve, from cache at the display device, pages identified in the rotation set that are stored in a cache;

determine that at least one page identified in the rotation set is not stored in the cache associated with the display device;

send, to the central control server, at least one request for the at least one page identified in the rotation set that is not stored in the cache at the display device;

receive the requested pages in response to the at least one request;

store the received pages in the cache;

display each page of the rotation set, wherein the pages are retrieved from the cache and displayed in the predetermined sequence in a substantially continuous loop until a new rotation set is received;

receive a notice of the change in the stored data from the central control server during display of the rotation set pages in a substantially continuous loop;

transmit the request for the page containing the changed data to the central control server; and

receive the page containing the changed data.

32. (Cancelled)

33. (Previously Presented) The system of claim 31, wherein the at least one central control server comprises a configuration management module adapted to identify rotation sets that include at least one page affected by the change in the stored data, with each rotation set comprising a list of pages to be displayed by a display device to which the rotation set is assigned.

34. (Previously Presented) The system of claim 33 wherein the at least one central control server is adapted to notify the at least one display device by sending, to the at least one display device, a rotation set that includes at least one page affected by the change in the stored data.

35. (Previously Presented) The system of claim 31 wherein the cache at the at least one display device stores pages identified in the rotation set for the associated display device and the associated display device displays each page identified in the rotation set assigned to the display device until the display device receives a rotation set that does not identify the page.

36. (Cancelled)

37. (Previously Presented) The system of claim 31 wherein the at least one central control server is further adapted to maintain an open connection with each display device, with the notification of the change in the stored data sent using the open connection.

38. (Previously Presented) The system of claim 31 wherein the at least one central control server further comprises a cache for storing previously requested pages and the at least one central control server is adapted to retrieve, from the cache, requested pages stored in the cache to send to the display device that displays the page.

39. (Previously Presented) The system of claim 31 wherein the at least one central control server further comprises a page maker module adapted to generate the requested pages using the changed data in the database and using formatting data defining the content and layout of the pages, wherein the page maker module includes at least one panel generator for generating panels, with each page constructed from a plurality of panels as defined by the formatting data.

40. (Cancelled)

41. (Previously Presented) The system of claim 31, further comprising at least one site cache, remote from the central control server and affiliated with at least two display devices in the set of display devices, the site cache communicatively coupled to the affiliated display devices over a local area network and adapted to:

route pages sent from the central control server to one of the affiliated display devices and store a copy of each of the pages routed to the affiliated display devices;

receive requests from affiliated display devices for pages not stored in caches of the affiliated display devices; and

respond to requests for pages not stored in caches of the affiliated display devices by retrieving pages stored in the site cache and previously routed to one of the affiliated display devices, sending retrieved pages to the requesting affiliated display devices, and forwarding requests for pages not stored in the site cache to the central control server.

42. (Previously Presented) An article comprising a machine-readable medium storing instructions for causing one or more processors to perform operations comprising:

receiving, from a remote central control server, a rotation set comprising a list of pages to be displayed;

retrieving, from a local cache, pages in the list that are stored in the local cache, wherein the pages in the rotation set are generated by the central control server;

requesting, from the remote central control server, pages in the list that are not stored in the local cache;

receiving the requested pages from the remote central control server, wherein the requested pages are generated by the central control server;

storing the received pages in the local cache;

displaying the pages in the list in a substantially continuous loop, using the pages stored in the local cache, until pages in a new list of pages are received;

receiving, from the remote central control server, a notice of a change to the rotation set during display of the rotation set pages in the substantially continuous loop, wherein the remote central control server is notified of the change by a remote data server, and wherein the notice of the change is received from the remote central control server in response to the remote central control server referencing subscription data stored in a database to identify a display device that is to display data that has changed, wherein the subscription data indicates the rotation set that is to be displayed;

transmitting a request for a new page identified in the notice of the change to the rotation set, the new page generated by the remote central control server and containing the changed data, wherein the request for the new page is transmitted in response to the notice; and

receiving the new page containing the changed data from the remote central control server.

43. (Previously Presented) The article of claim 42 wherein the list of pages comprises a uniform resource locator (URL) associated with each page and a specific page is requested from the remote central control server using a hypertext transfer protocol (HTTP) request containing the URL associated with the specific page.

44. (Previously Presented) The article of claim 42 wherein the machine-readable medium stores instructions for causing the one or more processors to perform further operations comprising displaying each page in the list of pages for a predetermined amount of time in each repetition of the substantially continuous loop.

45. (Previously Presented) The article of claim 42 wherein the machine-readable medium stores instructions for causing the one or more processors to perform further operations comprising:

receiving a new list of pages;

identifying pages in the new list that differ from the pages stored in the local cache; and

requesting the identified pages from the remote server.

46. (Original) The article of claim 42 wherein an extensible markup language (XML) document contains the list of pages.

47. (Previously Presented) The method of claim 26 further comprising identifying at least one rotation set that identifies the page containing the changed data.

48. (Previously Presented) The method of claim 26 wherein the rotation set specifies a uniform resource locator for at least one page to be displayed.

49. (Previously Presented) The method of claim 26 wherein the rotation set specifies an amount of time for which the at least one page is to be displayed.

50. (Previously Presented) The method of claim 26 wherein receiving the notice of the change to the rotation set includes receiving at least one rotation set, with the pages identified by the at least one rotation set reflecting the change in the displayed data.

51. (Previously Presented) The method of claim 26 wherein a hypertext transfer protocol (HTTP) is used to transmit the page to the display device.

52. (Cancelled)

53. (Previously Presented) The method of claim 26 further comprising receiving instructions to display the pages identified by the received rotation set at least until receiving the new rotation set.

54. (Previously Presented) The method of claim 53 wherein the instructions comprise portable, platform independent code.

55. (Previously Presented) The method of claim 53 wherein a hypertext transfer protocol (HTTP) is used to transmit the instructions to the display device to display the pages identified by a received rotation set.

56. (Previously Presented) The method of claim 26 wherein each page comprises a plurality of panels, the method further comprising:

identifying a panel that contains the changed data; and

identifying the page that contains the identified panel.

57. (Previously Presented) The method of claim 56 wherein the panel that contains the changed data and the page that contains the identified panel are identified using XML code.

58. (Cancelled)

59. (Previously Presented) The method of claim 26 further comprising storing the page containing the changed data for access by the display device.

60. (Previously Presented) The method of claim 26, wherein the page is defined using hypertext markup language (HTML).

61. (Previously Presented) The method of claim 26 wherein the page containing the changed data includes a plurality of panels, the method further comprising:

identifying at least one panel that contains the changed data;

retrieving the changed data; and

generating the at least one identified panel using the changed data, wherein generating the page containing the changed data is performed using the at least one identified panel.

62. (Previously Presented) The method of claim 61 further comprising retrieving the at least one panel containing the changed data from a cache in response to receiving the request, wherein generating the at least one panel containing the changed data is performed in response to a previously received request for the at least one panel containing the changed data.

63. (Previously Presented) The method of claim 26 wherein a name of the page containing the changed data specifies the changed data to be retrieved.

64. (Cancelled)

65. (Previously Presented) The method of claim 26 further comprising displaying the page containing the changed data in a web browser.

66. (Previously Presented) The method of claim 26 further comprising:

sending, to a site cache, at least one request for the at least one page identified in the rotation set that is not stored in the cache at the display device before sending a request for the at least one page to the central control server;

determining that at least one page identified in the rotation set, not stored in the cache at the display device, is not stored in a site cache affiliated with the display device, wherein the site cache is also affiliated with at least one other display device; and

wherein requests sent to the central control server for the at least on page identified in the rotation set are not stored in the display device or the site cache.

67. (Previously Presented) The system of claim 31, wherein the display devices are airport travel monitors and pages in rotation sets present arrival and departure information for an airport.

REMARKS

Claims have been amended per our discussion.

Respectfully submitted,

Date: October 1, 2009

/Dan C. Hu/

Dan C. Hu
Registration No. 40,025
TROP, PRUNER & HU, P.C.
1616 South Voss Road, Suite 750
Houston, TX 77057-2631
Telephone: (713) 468-8880
Facsimile: (713) 468-8883

Electronic Acknowledgement Receipt

EFS ID:	6183426
Application Number:	10675593
International Application Number:	
Confirmation Number:	9939
Title of Invention:	Pushing information to distributed display screens
First Named Inventor/Applicant Name:	Daivid J. Morgan
Customer Number:	22879
Filer:	Dan C. Hu/Cathy Hayes
Filer Authorized By:	Dan C. Hu
Attorney Docket Number:	200901398-1
Receipt Date:	01-OCT-2009
Filing Date:	30-SEP-2003
Time Stamp:	11:48:44
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant summary of interview with examiner	0881_Summary_telephonic_interview.pdf	16841 52ab01cce4ad20f09a4c2a97d3f0f75a210c2d31	no	1

Warnings:	
Information:	

2		0881_Unofficial_Amendment.pdf	48097 42109215124ef0ddecfbf6f4b0a30b78a30f7b4a	yes	12

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment After Final	1	1
Claims	2	11
Applicant Arguments/Remarks Made in an Amendment	12	12

Warnings:	
Information:	
Total Files Size (in bytes):	64938

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SUMMARY OF TELEPHONIC INTERVIEW

Sir:

On September 29, 2009, a telephonic interview was conducted between the undersigned and the Examiner Wilson Tsui to discuss various amendments to be made to the claims, as indicated in the attached Unofficial Amendment. No references and exhibits were discussed.

Agreement was reached that the attached Unofficial Amendment would be entered by Examiner's Amendment to place the present claims in condition for allowance.

Also, agreement was reached to make the following amendments to the specification: in each of the following passages (page 9, line 20; page 10, lines 11-12; page 11, lines 19-20; page 13, line 3) replace "storage medium, or propagated signal" with "or storage medium."

Respectfully submitted,

Date: October 1, 2009

/Dan C. Hu/

Dan C. Hu
Registration No. 40,025
TROP, PRUNER & HU, P.C.
1616 South Voss Road, Suite 750
Houston, TX 77057-2631
Telephone: (713) 468-8880
Facsimile: (713) 468-8883